45. The method of claim 43 further comprising communicating data between the camera and the LED lighting unit.

46. The method of claim 43 further comprising directing a sensor at a region that includes the subject.

47. The method of claim 46 wherein the sensor is integral to the camera.

48. The lighting system of claim 46 wherein the sensor is integral to the LED lighting unit.

49. The lighting system of claim 46 wherein the sensor is external to the camera and the LED lighting unit.

50. The method of claim 43 wherein the LED lighting unit is an unfiltered lighting unit.

51. The method of claim 43 wherein the LED lighting unit includes a filter.

52. The method of claim 43 further comprising providing a timer.

53. The method of claim 43 further comprising adjusting the output of the LED lighting unit to obtain a desired illumination.

54. The method of claim 43 further comprising providing a spatial control facility.

55. The method of claim 43 wherein the camera includes one or more of a film camera, a digital camera, a mini-camera, a television camera, a motion picture camera, a video camera, a video diskette camera, a still photography camera, a single lens reflex camera, a security camera, a telephoto camera, a point-and-shoot camera, a disposable camera, an underwater camera, a machine vision camera, a proximity detection camera, a large-format camera, a ultra-violet camera, and an infrared camera.

56. The method of claim 43 wherein camera includes an optical element selected from the group consisting of a zoom lens, a telephoto lens, a wide-angle lens, a fifty millimeter lens, an array of optical elements, and a digital pixel array.

57. The method of claim 43 further comprising applying the LED lighting unit to correct at least one of a color balance and a color temperature of illumination of the subject.

58. The method of claim 43 further comprising controlling one or more of saturation of light and hue of light generated by the LED lighting unit in response to a user input.

59. The method of claim 43 further comprising packaging the LED lighting unit in a package with at least one electronic component located in a submount of the LED package.

60. The method of claim 43 further comprising calibrating illumination of the subject in situ using a gray card.

61. The method of claim 43 controlling the LED lighting unit to simulate a time of day.

62. The lighting system of claim 61 wherein the time of day is one of morning, noon, or evening.

63. The method of claim 43 further comprising illuminating the subject with a plurality of lighting units.

64. The method of claim 63 further comprising controlling the plurality of lighting units using a serial addressing protocol.

65. The method of claim 63 pulsing the plurality of lighting units at a high current to provide high output for short periods of time.

66. The lighting system of claim 63 wherein the plurality of lighting units are arranged to substantially surround the subject.

67. The method of claim 43 further comprising modeling effects of light from the LED lighting unit using a virtual model of the LED lighting unit and the subject.

68. The method of claim 43 further comprising a displaying an image of the subject from the camera.

69. The method of claim 68 further comprising providing a graphical user interface on a display of the image, the graphical user interface providing controls for one or more lighting effects in one or more regions of the image.

70. The method of claim 69 further comprising generating one or more lighting effects by controlling the LED lighting unit in response to input received from the graphical user interface.

71. The method of claim 43 receiving a user input of one or more color values or intensity values and generating control signals to the LED lighting unit for corresponding color corrections to illumination of the subject.

72. The method of claim 43 further comprising storing lighting information descriptive of a manner in which the subject is illuminated with the LED lighting unit.

73. The method of claim 72 further comprising storing the lighting information with a digital image of the subject captured by the camera.

74. The method of claim 43 wherein the LED lighting unit is a flash unit.

75. The method claim 43 further comprising providing a touch-screen user interface for controlling the LED lighting unit.

76. The method of claim 43 further comprising diffusing the light from the LED lighting unit.

77. The method of claim 43 wherein the camera is a disposable camera.

78. The method of claim 43 further comprising converting a wavelength of light emitted by the LED lighting unit with a phosphor.

79. The method of claim 43 wherein the LED lighting unit is a foldable, flexible, flat lighting unit.

80. The method of claim 43 wherein the LED lighting unit includes one or more high-intensity LEDs.

81. The method of claim 43 wherein the LED lighting unit includes a plurality of LEDs controllable to produce a range of colors and a range of intensities.

82. The method of claim 81 wherein the range of colors is a range of discrete values.

83. The method of claim 81 wherein the range of intensities is a range of discrete values.

84. The method of claim 81 wherein the plurality of LEDs include LEDs having at least three different colors.

85. A lighting system comprising:

lighting means for lighting a subject with an LED lighting unit based on at least one of a desired lighting condition for the subject and a feature of the subject; and

camera means for capturing an image of the subject.

86. A lighting system for an imaging application, comprising:

a plurality of LED-based lighting units, wherein the lighting unit lights are controlled to eliminate double shadowing of an object.

87. A lighting system for an imaging application, comprising:

an LED-based lighting unit; and